

## Glossary

<b>AASHTO</b>	American Association of State Highway and Transportation Officials
<b>ADJUSTABLE GATE VALVE</b>	A knife gate valve, activated by a handwheel, used to control the internal diameter of reverse-slope pipe, or to allow rapid opening of the pond drain pipe.
<b>ADSORPTION</b>	Adhesion of the molecules of a gas, liquid or dissolved substance to a surface. Adsorption differs from absorption in that adsorption is the assimilation or incorporation of a gas, liquid, or dissolved substance into another substance.
<b>AGGREGATE</b>	Term for the stone or rock gravel needed to fill in an infiltration device such as a trench or porous pavement. Clean-washed aggregate is simply aggregate that has been washed clean so that no sediment is included
<b>API</b>	American Petroleum Institute
<b>AQUATIC BENCH</b>	A ten to fifteen foot bench around the inside perimeter of a permanent pool that is approximately 1 foot deep. Normally vegetated with emergent plants, the bench augments pollutant removal, provides habitat, conceals trash and water levels, and enhances safety.
<b>AREAL</b>	Of an expanse of land or region.
<b>ARTIFICIAL MARSH CREATION</b>	Simulation of natural marsh features and functions via topographic and hydraulic modifications on nonmarsh landscapes. Typical objectives for artificial marsh creation include ecosystem replacement or stormwater management.
<b>ASTM</b>	American Society for Testing and Materials
<b>BMP</b>	Best Management Practice
<b>BACTERIA</b>	Single-celled microorganisms that lack chlorophyll; some cause disease, others are necessary to sustain life (see Fecal Coliform Bacteria).
<b>BACTERIAL DECOMPOSITION OR MICROBIAL DECOMPOSITION</b>	Microorganisms, or bacteria, have the ability to degrade organic compounds as food resources and to absorb nutrients and metals into their tissues to support growth.
<b>BANK RUN</b>	Gravelly deposits consisting of smooth round stones, generally indicative of the existence of a prehistoric sea. Such deposits are normally found in coastal plain regions.
<b>BANK STABILIZATION</b>	Methods of securing the structural integrity of earthen stream channel banks with structural supports to prevent bank slumping and undercutting of riparian trees, and overall erosion prevention. To maintain the ecological integrity of the system, recommended techniques include the use of willow stakes, imbricated riprap, or brush bundles.
<b>BANKFULL DISCHARGE</b>	A flow condition where streamflow completely fills the stream channel up to the top of the bank. In undisturbed watersheds, the discharge condition occurs on average every one and a half to two years and controls the shape and form of natural channels.
<b>BASEFLOW</b>	The portion of stream flow that is not due to storm runoff, and

<b>BERM, EARTHEN</b>	is supported by groundwater seepage into a channel. An earthen mound used to direct the flow of runoff around or through a BMP.
<b>BEST MANAGEMENT PRACTICE (BMP)</b>	In this Catalog, the term refers to source or treatment controls designed to reduce pollution in stormwater runoff. Source controls are measures or devices designed to keep pollutants out of runoff. Examples include covers and roofs on outdoor storage processing areas and berms and sumps around outdoor source areas. Treatment controls are typically structural devices designed to temporarily store or treat urban stormwater runoff to reduce flooding, remove pollutants, and provide other amenities (e.g. enhance aesthetics and wildlife habitat).
<b>BIOCHEMICAL OXYGEN DEMAND (BOD)</b>	The quantity of dissolved oxygen used by microorganisms (e.g., bacteria) during the biochemical oxidation of matter (both organic and oxidizable inorganic matter) over a specified period of time.
<b>BIOFILTRATION</b>	The use of natural materials and vegetation to trap and remove pollutants from stormwater. Grass swales and constructed wetlands can both be used for biofiltration.
<b>BIOLOGICAL MONITORING</b>	Periodic surveys of aquatic biota as an indicator of the general health of a waterbody. Biological monitoring surveys can span the trophic spectrum, from macro-invertebrates to fish species.
<b>CATCHBASIN</b>	A structure at the point where a street gutter empties into a sewer, built to catch debris that would not easily pass through the sewer.
<b>CATCHMENT AREA</b>	See CONTRIBUTING WATERSHED AREA. Also known as drainage catchment area.
<b>CBR</b>	California Bearing Ratio
<b>CFS</b>	Cubic feet per second. A measure of volumetric flow rate. One CFS is about 449 gallons per minute.
<b>CHANNEL</b>	A natural or artificial waterway that periodically or continuously contains moving water. It has a definite bed and banks that confine the water.
<b>CHANNEL EROSION</b>	The widening, deepening, and headward cutting of small channels and waterways, due to erosion caused by moderate to larger floods.
<b>CHECK DAM</b>	A small dam (a) placed perpendicular to a stream to enhance aquatic habitat, or (b) placed perpendicular in biofiltration swales to reduce water velocities, promote sediment deposition, and enhance infiltration.
<b>CHECK VALVE:</b>	A device to provide positive closure that effectively prohibits the flow of material in the opposite direction of normal flow when operation of the irrigation system, pumping plant, or injection unit fails or is shut down (ASAE, 1989).
<b>CHEMICAL OXYGEN DEMAND (COD)</b>	The quantity of maximum oxidizable matter in a sample.
<b>COE</b>	Army Corps of Engineers
<b>Compost Stormwater Filter (CSF)</b>	A device which uses leaf compost to treat stormwater runoff.

<b>CONTRIBUTING WATERSHED AREA</b>	Portion of the watershed contributing its runoff to the site or BMP in question.
<b>CONVEYANCE SYSTEM</b>	The drainage facilities, both natural and human-made, which collect, contain, and provide for the flow of surface water and urban runoff from the highest points on the land down to a receiving water. The natural elements of the conveyance system include swales and small drainage courses, streams, rivers, lakes, and wetlands. The human-made elements of the conveyance system include gutters, ditches, pipes, channels, and most retention/detention facilities.
<b>CPEP</b>	Corrugated High Density Polyethylene Pipe
<b>CPS</b>	Coalescing Plate Separator
<b>CROSS SECTION</b>	A vertical section of a stream channel or structure that provides a side view of the structure; a transect taken at right angles to flow direction.
<b>CSF</b>	Compost Stormwater Filter
<b>CULVERT</b>	A covered channel or a large-diameter pipe that directs flow below the ground level.
<b>CWA</b>	Clean Water Act
<b>DEBRIS</b>	Any material, organic or inorganic, floating or submerged, moved by a flowing stream.
<b>DECIDUOUS</b>	Trees that shed leaves in the fall/winter.
<b>DELTA-t</b>	The magnitude of change in the temperature of downstream waters.
<b>DESIGN STORM</b>	A rainfall event of specified size and return frequency (e.g., a storm that occurs only once every 2 years) that is used to calculate the runoff volume and peak discharge rate to a BMP. Design storm information is presented in Appendix D of this Catalog.
<b>DETENTION</b>	The temporary storage of stormwater runoff in a structural device (BMP) to reduce the peak discharge rates and to provide settling of pollutants.
<b>DETENTION POND</b>	A constructed pond or vault that temporarily stores stormwater runoff and releases it at controlled rates.
<b>DETENTION TIME</b>	Time required for detention of stormwater runoff in a stormwater quality facility (also see "Detention").
<b>DE-WATERING</b>	Refers to a process used in detention/retention facilities, whereby water is completely discharged or drawn down to a pre-established pool elevation by way of a perforated pipe. De-watering allows the facility to recover its design storage capacity in a relatively short time after a storm event.
<b>DISCHARGE</b>	Outflow; the flow of a stream, canal, or aquifer. One may also speak of the discharge of a canal or stream into a lake, river, or ocean. (Hydraulics) Rate of flow, specifically fluid flow; a volume of fluid passing a point per unit of time, commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, gallons per day, or millions of gallons per day.
<b>DISSOLVED OXYGEN (DO)</b>	Oxygen which is present (dissolved) in water and available for use by fish and other aquatic animals. If the amount of

	dissolved oxygen in the water is too low, aquatic animals will suffocate.
<b>DIVERSION</b>	A channel, embankment, or other man-made structure constructed to divert water from one area to another (Soil Conservation Society of America, 1982).
<b>DOWNSTREAM SCOUR</b>	Downstream channel erosion usually associated with an upstream structure that has altered hydraulic conditions in the channel.
<b>DRAINAGE BASIN OR SUBBASIN</b>	See WATERSHED.
<b>DRAWDOWN</b>	The gradual reduction in water level in a pond BMP due to the combined effect of infiltration and evaporation.
<b>DRIPLINE</b>	An imaginary line around a tree or shrub at a distance from the trunk equivalent to the canopy spread.
<b>DROP STRUCTURE</b>	Placement of logs with a weir notch across a stream channel. Water flowing through the weir creates a plunge pool downstream of the structure and creates fish habitat.
<b>DRY POND CONVERSION</b>	A modification made to an existing dry stormwater management pond to increase pollutant removal efficiencies. For example, the modification may involve a decrease in orifice size to create extended detention times, or the alteration of the riser to create a permanent pool and/or shallow marsh system.
<b>DRY-WEATHER FLOW</b>	Flow occurring during the dry season (generally considered to be May through September) which may be associated with reservoir releases or releases of water from industrial or residential activities.
<b>DRYWELL</b>	A well to which stormwater is disposed for purposes of infiltration. These devices are not recommended for areas with high water table conditions.
<b>EMBANKMENT</b>	A bank (of earth or riprap) used to keep back water.
<b>EMERGENT PLANT</b>	An aquatic plant that is rooted in the sediment but whose leaves are at or above the water surface. Such wetland plants provide habitat for wildlife and waterfowl in addition to removing stormwater pollutants.
<b>END OF PIPE CONTROL</b>	Water quality control technologies suited for the control of existing urban stormwater at the point of storm sewer discharge to a stream. Due to typical space constraints, these technologies are usually designed to provide water quality control rather than quantity control.
<b>ENERGY DISSIPATION</b>	The loss of kinetic energy of moving water due to internal turbulence, boundary friction, change in flow direction, contraction, or expansion.
<b>EPA</b>	Environmental Protection Agency
<b>EROSION</b>	The wearing away of the land surface by running water, wind, ice, or other geological processes.
<b>EXFILTRATION</b>	The downward movement of runoff through the bottom of an infiltration BMP into the subsoil.
<b>EXTENDED DETENTION (ED)</b>	A stormwater design feature that provides for the gradual release of a volume of water (0.25 - 1.0 inches per impervious acre) over a 12 to 48 hour interval time to increase settling of

<b>EXTENDED DETENTION (ED) CONTROL DEVICE</b>	urban pollutants, and protect channel from frequent flooding. A pipe or series of pipes that extend from the riser of a stormwater pond that are used to gradually release stormwater from the pond over a 12 to 48 hour interval.
<b>EXTENDED DETENTION (ED) POND</b>	A conventional ED pond temporarily detains a portion of stormwater runoff for up to twenty-four hours after a storm using a fixed orifice. Such extended detention allows urban pollutants to settle out. The ED ponds are normally dry between storm events and do not have any permanent standing water. An enhanced ED pond is designed to prevent clogging and resuspension. It provides greater flexibility in achieving target detention times. It may be equipped with plunge pools near the inlet, a micropool at the outlet, and utilize an adjustable reverse-sloped pipe at the ED control device.
<b>EXTENDED DETENTION ZONE</b>	A pondscaping zone that extends from the normal pool to the maximum water surface elevation during extended detention events. Plants within this zone must be able to withstand temporary inundation from 5 to 30 times per year.
<b>FHWA FILTER FABRIC FLOODPLAIN</b>	Federal Highway Administration See Geotextile Fabric Any lowland that borders a stream and is inundated periodically by its waters.
<b>FLOW SPLITTER</b>	An engineered, hydraulic structure designed to divert a portion of stream flow to a BMP located out of the channel, or to direct stormwater to a parallel pipe system, or to bypass a portion of baseflow around a pond.
<b>FOREBAY</b>	An extra storage area provided near an inlet of a BMP to trap incoming sediments before they accumulate in a pond BMP.
<b>FRAGIPAN</b>	A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand.
<b>FREEBOARD</b>	The vertical distance between the design water surface elevation and the elevation of the bank, levee or revetment that contains the water.
<b>FREQUENT FLOODING</b>	A phenomenon in urban streams whereby the number of bankfull and sub-bankfull flood events increases sharply after the development. The frequency of these disruptive floods is a direct function of watershed imperviousness.
<b>FRINGE MARSH CREATION</b>	Planting of emergent aquatic vegetation along the perimeter of open water to enhance pollutant uptake, increase forage and cover for wildlife and aquatic species, and improve the appearance of a pond.
<b>GABION</b>	A large rectangular box of heavy gauge wire mesh which holds large cobbles or boulders. Used in streams and ponds to change flow patterns, stabilize banks, or prevent erosion.
<b>GEOMEMBRANE</b>	Lining of filter fabric on the bottom and sides of porous pavement to prevent lateral or upward movement of soil into the stone reservoir.
<b>GEOTEXTILE FABRIC</b>	Textile of relatively small mesh or pore size that is used to (a) allow water to pass through while keeping sediment out

<b>GRADING</b>	(permeable), or (b) prevent both runoff and sediment from passing through (impermeable). Also known as filter fabric. The cutting and/or filling of the land surface to a desired slope or elevation.
<b>GRASSED SWALE</b>	An earthen conveyance system in which the filtering action of grass and soil infiltration are utilized to remove pollutants from urban stormwater. An enhanced grass swale, or biofilter, utilizes checkdams and wide depressions to increase runoff storage and promote greater settling of pollutants.
<b>GRAVEL</b>	Sediment particles larger than sand and ranging from 2 to 64 mm (0.25 to 3 inches) in diameter.
<b>GRAVITATIONAL SETTLING</b>	The tendency of particulate matter to drop out of stormwater runoff as it flows downstream when runoff velocities are moderate and/or slopes are not too steep.
<b>GROUNDWATER TABLE</b>	The level below which the soil is saturated, that is, the pore spaces between the individual soil particles are filled with water. Above the groundwater table and below the ground surface, water in the soil does not fill all pore spaces.
<b>HABITAT</b>	A place where a biological organism lives. The organic and non-organic surroundings that provide life requirements such as food and shelter.
<b>HEAD</b>	Pressure.
<b>HEAVY METALS</b>	Metals of relatively high atomic weight, including but not limited to chromium, copper, lead, mercury, nickel, and zinc. These metals are generally found in minimal quantities in stormwater, but can be highly toxic even at trace levels.
<b>IMPERMEABLE</b>	Properties that prevent the movement of water through the material.
<b>IMPERVIOUS SURFACE INFILTRATION</b>	Material which resists or blocks the passage of water. The penetration of water through the ground surface into subsurface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls. The infiltration rate is expressed in terms of inches/hour. Infiltration rates will be slower when the soil is dense (e.g., clays) and faster when the soil is loosely compacted (e.g., sands). Can also refer to seepage of groundwater into sewer pipes through cracks and joints.
<b>INLET</b>	(1) A drainage passway. (2) A short, narrow waterway connecting a bay, lagoon, or similar body of water with a large parent body of water. (3) An arm of the sea (or other body of water) that is long compared to its width and may extend a considerable distance inland.
<b>LEVEL SPREADER</b>	A device used to spread out stormwater runoff uniformly over the ground surface as sheet flow (i.e., not through channels). The purpose of level spreaders is to prevent concentrative, erosive flows from occurring, and to enhance infiltration.
<b>LOAD ALLOCATION (LA)</b>	The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint

<b>LOADING CAPACITY (LC)</b>	sources of pollution or to natural background sources. The greatest amount of loading [pollutant] that a water can receive without violating water quality standards.
<b>LOWFLOW CHANNEL</b>	An incised or paved channel from inlet to outlet in a dry basin which is designed to carry low runoff flows and/or baseflow, directly to the outlet without detention.
<b>MICROPOOL</b>	A smaller permanent pool used in a stormwater pond due to extenuating circumstances, i.e., concern over the thermal impacts of larger ponds, impacts on existing marshes, or lack of topographic relief.
<b>MICROTOPOGRAPHY</b>	Refers to the contours along the bottom of a shallow wetland system. A complex microtopography creates a great variety of environmental conditions that favor the unique requirements of many different species of marsh plants.
<b>MULTIPLE POND SYSTEM</b>	A collective term for a cluster of pond designs that incorporate redundant runoff treatment techniques within a single pond or series of ponds. These pond designs employ a combination of two or more of the following: extended detention, permanent pool, shallow marsh, or infiltration. The wet ED pond is an example of a multiple pond system..
<b>NATURAL BUFFER</b>	A low sloping area of maintained grassy or woody vegetation located between a pollutant source and a waterbody. A natural buffer is formed when a designated portion of a developed piece of land is left unaltered from its natural state during development. A natural vegetative buffer differs from a vegetated filter strip in that it is natural and in that they need not be used solely for water quality purposes. To be effective, such areas must be protected against concentrated flow.
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NUTRIENTS</b>	Elements or substances, such as nitrogen or phosphorus, that are necessary for the growth and development of living things (e.g., plants). Large amounts of these substances reaching water bodies can lead to reduced water quality and eutrophication by promoting excessive aquatic algae growth. Some nutrients can be toxic at high concentrations.
<b>OBSERVATION WELL</b>	A test well installed in certain infiltration and filtration BMPs to monitor draining times after installation.
<b>OFF-LINE BMP</b>	A water quality facility designed to treat a portion of stormwater which has been diverted from a stream or storm drain.
<b>OFF-LINE TREATMENT</b>	A BMP system that is located outside of the stream channel or drainage path. A flow splitter is typically used to divert runoff from the channel and into the BMP for subsequent treatment.
<b>OIL/WATER (OR OIL/GRIT) SEPARATOR</b>	A best management practice consisting of a three-stage underground retention system designed to remove heavy particulates and absorbed hydrocarbons. Also known as a WATER QUALITY INLET.
<b>OUTFALL</b>	The point of discharge for a river, drain, pipe, etc.
<b>PARALLEL PIPE SYSTEM</b>	A technique for protecting sensitive streams. Excess stormwater runoff is piped in a parallel direction along the stream buffer instead of being discharged directly into the

<b>PASSIVE TREATMENT FACILITY</b>	stream. Facilities which use natural materials and vegetation to cleanse stormwater and/or reduce stormwater flow. Examples include grass swales, constructed wetlands, etc.
<b>PERCOLATION</b>	The downward movement of water through the soil.
<b>PERMANENT POOL</b>	A three to ten foot deep pool in a stormwater pond system that provides removal of urban pollutants through settling and biological uptake. (Also referred to as a wet pond).
<b>PERMEABILITY</b>	The quality of a soil horizon that enables water or air to move through it.
<b>PHYSICAL INFILTRATION</b>	The separation of particulates from runoff by grass, leaves and other organic matter on the surface, as the runoff passes across or through the ground.
<b>PILOT CHANNEL</b>	A riprap or paved channel that routes runoff through a BMP to prevent erosion of the surface.
<b>PLUNGE POOL</b>	A small permanent pool located at either the inlet to a BMP or at the outfall from a BMP. The primary purpose of the pool is to dissipate the velocity of stormwater runoff, but it also can provide some pre-treatment, as well.
<b>POLLUTANT</b>	Generally, any substance introduced into the environment that adversely affects the usefulness of a resource.
<b>POLLUTION</b>	Impairment of water quality caused by man-made waste discharges or natural processes.
<b>PONDSCAPING</b>	A method of designing the plant structure of a stormwater marsh or pond using inundation zones. The proposed marsh or pond system is divided into zones which differ in the level and frequency of inflow. For each zone, plant species are chosen based on their potential to thrive, given the inflow pattern of the zone.
<b>POROUS PAVEMENT</b>	An alternative to conventional pavement whereby runoff is diverted through a porous asphalt layer and into an underground storage reservoir. The stored runoff then gradually infiltrates into the subsoil. Porous pavement is not recommended for use in areas with high water table conditions.
<b>RETROFIT</b>	The creation/modification of stormwater management systems in developed areas through the construction of wet ponds, infiltration systems, marsh plantings, streambank stabilization, and other BMP techniques for improving water quality and creating aquatic habitat. A retrofit can consist of the construction of a new BMP in the developed area, the enhancement of an older stormwater management structure, or a combination of improvement and new construction.
<b>REVERSE SLOPE PIPE</b>	A pipe that extends downward from the riser into the permanent pool that sets the water surface elevation of pool. The lower end of the pipe is located up to 1 foot below the water surface. Very useful technique for regulating ED times in a stormwater wetland, and it seldom clogs.
<b>RIPARIAN</b>	A relatively narrow strip of land that borders a stream or river, often coincides with the maximum water surface elevation of the one-hundred year storm.



<b>RIPARIAN REFORESTATION</b>	The replanting of the banks and floodplain of a stream with native forest and shrub species to stabilize erodible soils, improve both surface and groundwater quality, increase stream shading, and enhance wildlife habitat.
<b>RIPRAP</b>	A combination of large stone, cobbles, and boulders used to line channels, stabilize banks, reduce runoff velocities, or filter out sediment.
<b>RISER</b>	A vertical pipe extending from the bottom of a pond BMP that is used to control the discharge rate from a BMP for a specified design storm.
<b>ROOT ZONE</b>	The part of the soil that is, or can be, penetrated by plant roots (Soil Conservation Society of America, 1982).
<b>ROTOTILLING</b>	Mechanical means of tilling, or rotating, the soil.
<b>RUNOFF</b>	See "Stormwater Runoff."
<b>RUNOFF CONVEYANCE</b>	Methods for safely conveying stormwater to a BMP to minimize disruption of the stream network, and promote infiltration or filtering of the runoff.
<b>RUNOFF FREQUENCY SPECTRUM</b>	The frequency distribution of unit are runoff volumes generated by a long, term continuous time-series of rainfall events. Used to develop BMP and stormwater sizing rules.
<b>RUNOFF PRETREATMENT</b>	Techniques to capture or trap coarse sediments before they enter a BMP to preserve storage volumes or prevent clogging with in the BMP. Examples include forebays and micropools for pond BMPs, and plunge pools, grass filter strips, and filter fabric for infiltration BMPs.
<b>RUNON SAFETY BENCH</b>	Off-site flows which flows onto a site. A ten to fifteen foot bench located just outside the perimeter of a permanent pool. The bench extends around the entire shoreline to provide for maintenance access and eliminate hazards.
<b>SAND FILTER</b>	A technique for treating stormwater, whereby the first flush of runoff is diverted into a self-contained bed of sand. The runoff is then strained through the sand, collected in underground pipes and returned back to the stream or channel. An enhanced sand filter utilizes layers of peat, limestone, and/or topsoil, and may also have a grass cover crop. The adsorptive media of an enhanced sand filter is expected to improve removal rates.
<b>SC</b>	Spill Control
<b>SCOUR</b>	Concentrated erosive action of flowing water in streams that removes material from the bed and banks.
<b>SCS</b>	Soil Conservation Service of USDA. Note: New name for this agency, as of 1996, is National Resources Conservation Service (NRCS).
<b>SEDIMENT</b>	The product of erosion processes; the solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice (USDA-SCS, 1991).
<b>SEDIMENTATION</b>	The process of sand and mud settling and building up on the bottom of a creek, river, lake, or wetland.
<b>SEDIMENT FOREBAY</b>	Stormwater design feature that employs the use of a small

	settling basin to settle out incoming sediments before they are delivered to a stormwater BMP. Particularly useful in tandem with infiltration devices, wet ponds, or marshes.
<b>SEEDBANKS</b>	Refers to the large number and diversity of dormant seeds of plant species that exist within the soil. The seeds may exist within the soil for years before they germinate under the proper moisture, temperature, or light conditions. Within marsh soils, this seedbank helps to maintain above-ground plant diversity and can also be used to rapidly establish marsh plants within a newly constructed stormwater marsh.
<b>SEEPAGE</b>	Water escaping through or emerging from the ground along an extensive line or surface as contrasted with a spring, where the water emerges from a localized spot (Soil Conservation Society of America, 1982).
<b>SEPTIC</b>	Produced by anaerobic decomposition of organic matter with accompanying foul odors.
<b>SHEET FLOW</b>	Water, usually storm runoff, flowing in a thin layer over the ground surface (Soil Conservation Society of America, 1982).
<b>SHORT CIRCUITING</b>	The passage of runoff through a BMP in less than the theoretical or design treatment time.
<b>SINUOSITY</b>	(From Gordon, McMahon, and Finlayson, 1992) A measure of the wiggleness of a watercourse. While sinuosity has a number of definitions, the most commonly used one is the sinuosity index, which is given as: $SI = \frac{\text{Channel (Thalweg) Distance}}{\text{Downvalley distance}}$
<b>SLOPE</b>	The degree of deviation of a surface from horizontal, measured as a percentage, as a numerical ratio, or in degrees (Soil Conservation Society of America, 1982).
<b>SOURCE CONTROL</b>	A pollution control measure which operates by keeping pollutants from entering stormwater
<b>STORM DRAIN (or STORM SEWER SYSTEM)</b>	Above and below ground structures for transporting stormwater to streams or outfalls for flood control purposes.
<b>STORMWATER RUNOFF</b>	Excess precipitation that is not retained by vegetation, surface depressions, or infiltration, and thereby collects on the surface and drains into a surface water body.
<b>Stormwater Site Plan (SSP)</b>	A plan prepared during the project design phase to show the BMPs and techniques that will be used to control stormwater pollution during construction and after construction is complete. Appendix E provides a description of the recommended contents of a stormwater site plan.
<b>STORMWATER TREATMENT</b>	Detention, retention, filtering, or infiltration of a given volume of stormwater to remove urban pollutants and reduced frequent flooding.
<b>STREAM BUFFER</b>	A variable width strip of vegetated land adjacent to a stream that is preserved from development activity to protect water quality, aquatic, and terrestrial habitats.
<b>SUBSOIL SUBSTRATE</b>	The bed or stratum of earth lying below the surface soil A technique to improve the texture, and organic content of

<b>AMENDMENTS</b>	soils in a newly excavated pond system. The addition of organic rich soils is often required to ensure the survival of aquatic and terrestrial landscaping around ponds.
<b>SUSPENDED SEDIMENT</b>	The very fine soil particles that remain in suspension in water for a considerable period of time (Soil Conservation Society of America, 1982).
<b>SWALE</b>	A natural depression or wide shallow ditch used to temporary store, route, or filter runoff.
<b>TOPOGRAPHY</b>	The relative positions and elevations of the natural or man-made features of an area that describe the configuration of its surface (Soil Conservation Society of America, 1982).
<b>TOTAL MAXIMUM DAILY LOAD (TMDL)</b>	The sum of individual waste load allocations for point sources and load allocations for nonpoint sources and natural background. The Idaho Division of Environmental Quality has the authority to set TMDLs for water quality-limited bodies.
<b>TOXIC. TRASH AND DEBRIS REMOVAL</b>	Related to or caused by a poison, hazardous waste, or toxin. Mechanical or manual removal of debris, snags, and trash deposits from the streambanks to improve the appearance of the stream.
<b>UNDERDRAIN</b>	Plastic pipes with holes drilled through the top, installed on the bottom of a sand filter, which are used to collect and remove excess runoff.
<b>URBAN RUNOFF</b>	Stormwater that passes through and out of developed areas to a stream or other body of water. (See Stormwater Runoff.)
<b>USDA VACUUM SWEEPING</b>	United States Department of Agriculture. Method of removing quantities of coarse-grained sediments from porous pavements in order to prevent clogging. Not effective in removing fine- grained pollutants.
<b>VEGETATED FILTER STRIP</b>	A vegetated section of land designed to accept runoff as overload sheet flow from upstream development. It may adopt any natural vegetated form, from grass meadow to small forest. The dense vegetative cover facilitates pollutant removal.  A filter strip cannot treat high velocity flows; therefore, they have generally been recommended for use in agriculture and low density development. A vegetated filter strip differs from a natural buffer in that the strip is not natural ; rather, it is designed and constructed specifically for the purpose of pollutant removal. A filter strip can also be an enhanced natural buffer, however, whereby the removal capability of the natural buffer is improved the rough engineering and maintenance activities such as land grading or the installation of a level spreader. A filter strip also differs from a grassed swale in that a swale is a concave vegetated conveyance system, whereas a filter strip has a fairly level surface.
<b>VELOCITY</b>	The distance that water travels in a given direction in a stream during an interval of time.
<b>WASTELOAD ALLOCATION (WLA)</b>	The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution
<b>WATER QUALITY</b>	See OIL/WATER SEPARATOR.

**INLET  
WATERSHED OR  
DRAINAGE BASIN  
WEEPHOLE**

A geographic area within which all surface water drains into a particular body of water (e.g., a river or stream).

A small opening or pipe left in a revetment or bulkhead to allow groundwater drainage.

**WEIR**

A structure that extends across the width of a channel and is intended to impound, delay or in some way alter the flow of water through the channel. A CHECK DAM is a type of weir as is any kind of dam.

**WET POND**

A conventional wet pond has a permanent pool of water for treating incoming stormwater runoff.

In enhanced wet pond designs, a forebay is installed to trap incoming sediments where they can be easily removed; a fringe marsh is also established around the perimeter of the pond.

**WET-WEATHER FLOW**

Water derived primarily from rain, melting snow or irrigation during the wet season (generally considered to be October through April) that flows over the surface of the ground.

**WETLAND**

A conventional wetland for stormwater quality control is a shallow pool that creates growing conditions suitable for the growth of marsh plants. Designed to maximize pollutant removal through marsh uptake, retention, and settling.

A wetland is a constructed system and typically is not located within delineated a natural wetland. In addition, a stormwater wetland differs from an artificial wetland created to comply with mitigation requirements in that the stormwater wetland does not replicate all the ecological functions of natural wetlands.

An enhanced stormwater wetland is designed for more effective pollutant removal and species diversity. It also includes design elements such as a forebay, complex microtopography, and pondscaping with multiple species of marsh trees, shrubs, and plants.

**WETLAND  
MITIGATION**

Regulatory requirement to replace marsh areas destroyed or impacted by proposed land disturbances with artificially created marsh areas.

**WETLAND MULCH**

A technique for establishing low or high marsh areas where the top twelve inches of marsh soil from a donor marsh are spread thinly over the surface of a created marsh site as a mulch. The seedbank and organic matter of the mulch helps to rapidly establish a diverse marsh system.

**WETLAND PLANT  
UPTAKE**

Marsh plant species rely on nutrients (i.e., phosphorous and nitrogen) as a food source; thus, they may intercept and remove nutrients from either surface or subsurface flow.

**WLA  
WTR**

Wasteload Allocation

Wastewater Treatment Requirements